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### MAILING CERTIFICATE

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By Kay Buler  
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Kay Buler  
Printed Name

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Peter W. Laird and Cindy A. Eads

Serial No.: 09/825,566

Filed: April 2, 2001

For: EPIGENETIC SEQUENCES FOR ESOPHAGEAL ADENOCARCINOMA

Art Unit: not yet assigned

Examiner: not yet assigned

Docket No.: 47675-18

Date: August 31, 2001

Assistant Commissioner for Patents  
Box Non-Fee Amendment  
Washington, DC 20231

### INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the requirements in 37 C.F.R. § 1.56, applicants hereby submit an Information Disclosure Statement. These references recently came to Applicants' attention in a Search Report issued in a corresponding foreign application, a copy of which is enclosed. Applicants respectfully request that the Examiner: (1) consider the following documents during the course of his or her examination of the above-identified patent application, and (2) list the following documents in the References Cited section of any patent that may issue from the above-identified patent application.

The following documents are provided:

United States Patents

None

Foreign Patent Documents

None

Other

KAWAKAMI, K. et al. Hypermethylated APC DNA in Plasma and Prognosis of Patients with Esophageal Adenocarcinoma. *Journal of the National Cancer Institute*. 15 November 2000. vol. 92., No. 22, pages 1805-1811.

EADS, C.A. et al. Fields of Aberrant CpG Island Hypermethylation in Barrett's Esophagus and Associated Adenocarcinoma. *Cancer Research*. 15 September 2000. Vol. 50, pages 5021-5026.

SUZUKI, H. et al. Intragenic mutations of CDKN2B and CDKN2A in primary human esophageal cancers. *Human Molecular Genetics*. 1995. Vol. 4 no. 10, pages 1883-1887.

CODY, D.T., II et al. Differential DNA methylation of the p16 INK4A/CDKN2A promoter in human oral cancer cells and normal human oral keratinocytes. *Oral Oncology*. 1999, Vol. 35, pages 516-522.

GRAFF, J.R. et al. Distinct Patterns of E-Cadherin CpG Island Methylation in Papillary, Follicular, Hurthle's Cell, and Poorly Differentiated Thyroid Carcinoma. *Cancer Research*. 15 May 1998, Vol. 58, pages 2063-2066.

IWASE, H. et al. DNA methylation analysis at distal and proximal promoter regions of the oestrogen receptor gene in breast cancers. *British Journal of Cancer*. 1999, Vol. 80. No. 12, pages 1982-1986.

MILLAR, D.S. et al. Detailed methylation analysis of the glutathione S-transferase  $\pi$  (GSTP1) gene in prostate cancer. *Oncogene*. 1999, Vol. 18. pages 1313-1324.

JHAVERI, M.S. et al. Methylation-mediated regulation of the glutathione S-transferase P1 gene in human breast cancer cells. *Gene* (1998) Vol. 210, pages 1-7.

BARRETT, M.T. et al. Evolution of neoplastic cell lineages in Barrett oesophagus. *Nature Genetics*. May 1999, Vol. 22, pages 106-109.

HERMAN, J.G. et al. Incidence and functional consequences of hMLH1 promoter hypermethylation in colorectal carcinoma. *Proceedings of the National Academy of Sciences*. June 1998, vol. 95, pages 6870-6875.

ESTELLER, M et al. Inactivation of the DNA Repair Gene O<sup>6</sup>-Methylguanine-DNA

Methyltransferase by Promoter Hypermethylation is a Common Event in Primary Human Neoplasia. *Cancer Research*, 15 February 1999. Vol. 59, pages 793-797.

IACOPETTA, B.J. et al. Hypermethylation of the Myf-3 Gene in Human Colorectal Cancer. *Anticancer Research*. 1997. Vol. 17, pages 429-432.

ESTELLER, M. et al. Hypermethylation-associated Inactivation of p14<sup>ARF</sup> Is Independent of p16<sup>INK4a</sup> Methylation and p53 Mutational Status. *Cancer Research*. 01 January 2000. Vol. 60, pages 128-133.

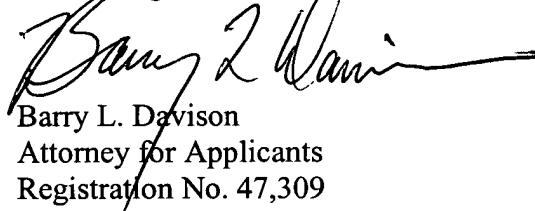
NAKAMURA, M. et al. Promoter Hypermethylation of the RB1 Gene in Glioblastomas. *Laboratory Investigations*. January 2001. Vol. 81, no. 1, page 77-82.

MELKI, J.R. et al. Cancer-specific region of hypermethylation identified within the HIC1 putative tumour suppressor gene in acute myeloid leukaemia. *Leukemia*. 1999. Vol. 13, pages 877-883.

Applicants respectfully request consideration of the foregoing documents during examination of the above-identified patent application. Applicants have enclosed a completed PTO Form 1449A, a copy of the International Search Report and a copy of each cited document.

Respectfully submitted,

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PTO/SB/08A (10-96)

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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Complete if Known	
				Application Number	09/825,566
				Filing Date	April 2, 2001
				First Named Inventor	Peter W. Laird
				Group Art Unit	
				Examiner Name	
Sheet	1	of	2	Attorney Docket Number	47675-18

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No.	U.S. Patent Document Number and Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
None					

FOREIGN PATENT DOCUMENTS					
Examiner Initials *	Cite No.	Foreign Patent Document Office, Number, Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
None					

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(2), volume-issue number(2), publisher, city and/or country where published			
✓	O1	KAWAKAMI, K. et al. Hypermethylated APC DNA in Plasma and Prognosis of Patients with Esophageal Adenocarcinoma. <i>Journal of the National Cancer Institute</i> . 15 November 2000. vol. 92., No. 22, pages 1805-1811.			
✓	O2	EADS, C.A. et al. Fields of Aberrant CpG Island Hypermethylation in Barrett's Esophagus and Associated Adenocarcinoma. <i>Cancer Research</i> . 15 September 2000. Vol. 50, pages 5021-5026.			
✓	O3	SUZUKI, H. et al. Intragenic mutations of CDKN2B and CDKN2A in primary human esophageal cancers. <i>Human Molecular Genetics</i> . 1995. Vol. 4 no. 10, pages 1883-1887.			
✓	O4	CODY, D.T., ii et al. Differential DNA methylation of the p16 INK4A/CDKN2A promoter in human oral cancer cells and normal human oral keratinocytes. <i>Oral Oncology</i> . 1999, Vol. 35, pages 516-522.			
✓	O5	GRAFF, J.R. et al. Distinct Patterns of E-Cadherin CpG Island Methylation in Papillary, Follicular, Hurthle's Cell and Poorly Differentiated Human Thyroid Carcinoma. <i>Cancer Research</i> . 15 May 1998, Vol. 58, pages 2063-2066.			



OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(2), volume-issue number(2), publisher, city and/or country where published
	O6	IWASE, H. et al. DNA methylation analysis at distal and proximal promoter regions of the oestrogen receptor gene in breast cancers. <i>British Journal of Cancer</i> . 1999, Vol. 80. No. 12, pages 1982-1986.
	O7	MILLAR, D.S. et al. Detailed methylation analysis of the glutathione S-transferase $\pi$ (GSTP1) gene in prostate cancer. <i>Oncogene</i> . 1999, Vol. 18. pages 1313-1324.
	O8	JHAVERI, M.S. et al. Methylation-mediated regulation of the glutathione S-transferase P1 gene in human breast cancer cells. <i>Gene</i> (1998) Vol. 210, pages 1-7.
	O9	BARRETT, M.T. et al. Evolution of neoplastic cell lineages in Barrett oesophagus. <i>Nature Genetics</i> . May 1999, Vol. 22, pages 106-109.
	O10	HERMAN, J.G. et al. Incidence and functional consequences of hMLH1 promoter hypermethylation in colorectal carcinoma. <i>Proceedings of the National Academy of Sciences</i> . June 1998, vol. 95, pages 6870-6875.
	O11	ESTELLER, M et al. Inactivation of the DNA Repair Gene O <sup>6</sup> -Methylguanine-DNA Methyltransferase by Promoter Hypermethylation is a Common Event in Primary Human Neoplasia. <i>Cancer Research</i> , 15 February 1999. Vol. 59, pages 793-797.
	O12	IACOPETTA, B.J. et al. Hypermethylation of the Myf-3 Gene in Human Colorectal Cancer. <i>Anticancer Research</i> . 1997. Vol. 17, pages 429-432.
	O13	ESTELLER, M. et al. Hypermethylation-associated Inactivation of p14 <sup>ARF</sup> Is Independent of p16 <sup>INK4a</sup> Methylation and p53 Mutational Status. <i>Cancer Research</i> . 01 January 2000. Vol. 60, pages 128-133.
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	O15	MELKI, J.R. et al. Cancer-specific region of hypermethylation identified within the HIC1 putative tumour suppressor gene in acute myeloid leukaemia. <i>Leukemia</i> . 1999. Vol. 13, pages 877-883.

Examiner Signature		Date Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.